

CANADA / JUDGMENT

R. v. Wiwchar

2024 BCSC 2580

COURT

Supreme Court of British Columbia

DECIDED

15 November 2024

Source: bccourts.ca · Research copy typeset by Esheria. Not court-issued or certified.

2024 BCSC 2580 R. v. Wiwchar

IN THE SUPREME COURT OF BRITISH COLUMBIA

Citation:

R. v. Wiwchar,

2024 BCSC 2580

Date: 20241115

Docket: 27393-198

Registry: Vancouver

Rex

v.

Dean Michael Wiwchar

Restriction on Publication: Pursuant to 486.5(1), 486.5(2) & 648(1) C.C.C.

Inherent Jurisdiction

Before: The Honourable Madam Justice Ker

Oral Ruling Re Application 198 - Admissibility of Expert Evidence of S/Sgt. Bernier (Voir Dire #3)

Counsel for the Crown:

M.J. Sheardown

S.L. Dworkin

N. Grégoire

A. LaBar

The accused, appearing in person:

D. Wiwchar

Counsel appearing as Amicus Curiae:

T.M. Arbogast, K.C.

K.A. Kirkpatrick

Place and Date of Hearing:

Vancouver, B.C.

October 1-4, 22, 2024

Place and Date of Judgment:

Vancouver, B.C.

November 15, 2024

Table of Contents

Introduction.. 3

Governing legal principles. 6

Expert evidence. 6

The admissibility of PowerPoint presentations. 10

S/Sgt. Bernier's evidence. 11

S/Sgt. Bernier's background and training. 12

RDX. 15

Analysis. 18

Mr. Wiwchar's submissions on why S/Sgt. Bernier ought not to be qualified to give expert evidence. 19

The expert opinion evidence. 20

Proposed non-opinion evidence. 28

PowerPoint presentation. 29

Appendix 'A' 30

[1] These reasons for judgment were delivered as oral reasons. They have since been edited for distribution.

Introduction

- [2] By notice of application filed December 6, 2023, the Crown seeks an order that the expert evidence of Staff Sergeant Nicolas Bernier be admissible at Mr. Wiwchar's trial and that his PowerPoint presentation be admissible as an exhibit at the trial. This ruling addresses the Crown's application to have S/Sgt. Bernier qualified to give expert opinion evidence in the following areas, as indicated in para. 3 of the Crown's Notice of Application 198 [NOA 198]:
3. The Crown seeks to have S/Sgt Bernier qualified to give the following expert opinion evidence:
- Opinion evidence that the software developed by the RCMP named "RDX" (RCMP Data eXtractor) generates a report in a readable format of the data contained in the physical extraction (image) of the BlackBerry device analyzed. That the RDX software program is capable of interpreting the data contained in the physical extraction (image) including the decryption of the built-in BlackBerry encryption (i.e. content protection) and PGP encrypted messages. S/Sgt. Bernier's opinion is that in his experience, using RDX for almost 5 years, the reports generated by RDX are reliable.
- [3] The Crown also seeks to have S/Sgt. Bernier qualified to give non-opinion evidence in four areas indicated in paras. 2(a)-2(d) of the NOA 198:
2. The Crown seeks to have S/Sgt Bernier qualified to give evidence in the following areas:
- a. The analysis of BlackBerry smart phones including the extraction and examination of electronic data stored on encrypted BlackBerry smart phones.
 - b. The description and explanation of the security features available to the user of BlackBerry smart phones including supplementary third-party encryption services like Pretty Good Privacy software or PGP.
 - c. The interpretation of RCMP RDX BlackBerry analysis reports and reports produced of BlackBerry data extracted from Cellebrite UFED Physical Analyzer.
 - d. The description and explanation of the most common types of data recovered from BlackBerry smart phones, including address books, log notes, SMS, PIN to PIN, e-mail and BlackBerry Messenger.
- [4] Mr. Wiwchar opposes the application, relying primarily upon the argument filed and the submissions made by counsel for his former co-accused, Rabih Alkhalil during the trial before Madam Justice Maisonville in April and May 2022. As all are aware, Mr. Wiwchar was on the indictment and one of the three co-accused in the trial before Maisonville J. and a jury until March 7, 2022. Mr. Wiwchar dismissed his then trial counsel mid-trial and, as a result of that development, Mr. Wiwchar was severed from the indictment. The trial of the two co-accused continued before Maisonville J. and the jury.

- [5] Justice Maisonville ruled on an application identical to this one in the course of the trial of Mr. Alkhalil and Mr. Amero. The expert opinion and non-opinion evidence as well as the PowerPoint presentation were all ruled admissible in that trial. Justice Maisonville's comprehensive and considered ruling is found at 2022 BCSC 905. It informs my ruling on this application.
- [6] To the extent that Mr. Wiwchar's opposition to the Crown's application relies upon the arguments advanced in the trial before Justice Maisonville, it is not necessary to consider them further. The evidence that was before Justice Maisonville on that voir dire, more specifically the transcripts of S/Sgt. Bernier's evidence as well as the argument of the defence, were placed before the Court on this application. I see no reason to depart from Justice Maisonville's finding or ruling addressing those points. With respect to Mr. Wiwchar, I agree with Justice Maisonville and I adopt her analysis rejecting the points advanced by Mr. Alkhalil's counsel.
- [7] Amicus provided focused and thoughtful submissions on the proposed areas of S/Sgt. Bernier's evidence. Amicus properly conceded that the areas of the proposed non-opinion evidence from S/Sgt. Bernier outlined in paras. 2(b)-2(d) of the Crown's NOA 198 were areas where S/Sgt. Bernier is qualified to provide this evidence. In light of this concession, coupled with Justice Maisonville's findings on S/Sgt. Bernier's qualifications, it is not necessary to address these areas further. I am satisfied that S/Sgt. Bernier is fully qualified to give evidence in these non-disputed areas, as outlined at paras. 2(b)-(d) of the Crown's NOA 198 and paras. 3(b)-(d) of the written submissions filed by Amicus.
- [8] Amicus contends that S/Sgt. Bernier should only be partially qualified in respect of paras. 2(a) and 3 of the Crown's NOA 198. More specifically, Amicus advances the following:
3. Amicus' position is that SSgt. Bernier is qualified to provide expert evidence in some of the areas that the Crown seeks, but not all of them. Particularly, and predicated upon guidance from recent caselaw (released after an analysis and ruling of SSgt. Bernier's qualifications at the first trial, which occurred after Mr. Wiwchar was severed on March 7, 2022 - see *R v Major*, 2022 BCSC 905, released May 31, 2022), amicus takes the following position with respect to qualifications to provide evidence (underlined below):
 - a. The analysis of BlackBerry smart phones including the extraction and examination of electronic data stored on encrypted BlackBerry smart phones:
 - i. SSgt. Bernier is qualified to analyze and examine data that has been stored on a BlackBerry smart phone but is not qualified to comment on how data is extracted nor on the reliability of the extraction of data.

[Emphasis in original.]

- [9] Insofar as the expert opinion evidence the Crown seeks to qualify S/Sgt. Bernier to give, Amicus acknowledges that the officer is able to offer expert opinion evidence on part of the area the Crown tenders him in, but not all of it. More specifically, Amicus outlined its position in the following fashion in its submissions:
4. With respect to the specific evidence that the Crown seeks an opinion on, amicus position is as follows (underlined below):
- a. Opinion evidence that the software developed by the RCMP named "RDX" (RCMP Data eXtractor) generates a report in a readable format of the data contained in the physical extraction (image) of the BlackBerry device analyzed. That the RDX software program is capable of interpreting the data contained in the physical extraction (image) including the decryption of the built-in BlackBerry encryption (i.e. content protection) and PGP encrypted messages. S/Sgt. Bernier's opinion is that in his experience, using RDX for almost 5 years, the reports generated by RDX are reliable.
- i. SSgt. Bernier is qualified to provide opinion evidence that RDX software generates a report of data extracted from a BlackBerry device in readable format and that RDX is capable of reading extracted data but, he is not qualified to provide an opinion on the reliability of the initial physical image of the extracted data.

[Emphasis in original.]

- [10] Amicus thus contends that S/Sgt. Bernier's expert evidence should be limited to the context of his specialized expertise: the analysis, examination, and interpretation of electronic data stored on BlackBerry devices. In Amicus' view, however, S/Sgt. Bernier cannot offer opinions on the reliability of data within the RDX reports.
- [11] Mr. Wiwchar adopted the submissions of Amicus with respect to the areas that Amicus contends S/Sgt. Bernier should not be permitted to provide expert evidence.
- [12] Before reviewing the evidence led on this voir dire, it is helpful to outline the analytical framework that governs this application. I will note that the legal principles were not in dispute on this voir dire. Rather, it is the result of their application that gives rise to the opposing positions as between the Crown and Amicus.

Governing legal principles

Expert evidence

- [13] Opinion evidence, including expert opinion evidence, is presumptively inadmissible. The party tendering the evidence must establish its admissibility on a balance of probabilities: *R. v. Abbey*, 2009 ONCA 624 at para. 71 [*Abbey* 2009], leave to appeal ref'd, 2010 SCCA 125.
- [14] The opinion rule limits a witness to state precisely and exactly what they have observed. It excludes opinions that are inferences from observations, whether given by an expert or a layperson. It is, however, often difficult to make a distinction between fact and opinion.

Expert opinion evidence is an exception to the general exclusionary rule and is admissible, subject to satisfying the threshold admissibility test when the subject matter is outside the experience and knowledge of the trier of fact and the expert will assist the trier of fact in reaching a correct conclusion about the matter.

- [15] The function of the expert is to provide the trier of fact with a ready-made inference which, due to the technical nature of the subject, the trier is unable to formulate: *R. v. Scott*, 2018 BCSC 1739 at paras. 54-55; *Alkhalil* at paras. 5-7.
- [16] When the trier of fact can make their own inferences without the assistance of the witness, this is when expert opinion is unnecessary or superfluous: see generally David Watt, *Manual of Criminal Evidence* (Toronto: Thomson Reuters, 2023), §29.01 at 441.
- [17] The legal principles governing the admission of expert evidence have evolved considerably since the modern test or framework for admission was articulated in the landmark decision of *R. v. Mohan*, [1994] 2 S.C.R. 9. In *Mohan*, the Supreme Court set out the well-known four-part test for admissibility, which itself is an enhanced version of the Wigmore rules of necessity and reliability. The proponent tendering the opinion evidence must establish, on a balance of probabilities, the threshold requirements of admissibility, which include the following four criteria: (i) logical relevance; (ii) necessity to assist the trier of fact; (iii) the absence of an exclusionary rule; and (iv) a properly-qualified expert.
- [18] Additionally, where the opinion is based on "novel or contested science, or science used for a novel purpose", the party tendering the expert evidence must also show that the underlying science is reliable for that purpose: *R. v. J.-L.J.*, 2000 SCC 51; *R. v. Abbey*, 2017 ONCA 640 at para. 48 [*Abbey* 2017].
- [19] Given the proliferation of expert evidence and more frequent resort to novel scientific evidence or science used for a novel purpose since *Mohan*, the Supreme Court of Canada has required that courts assess this aspect under the first stage of the admissibility framework: *White Burgess Langille Inman v. Abbott and Haliburton*, 2015 SCC 23 at para. 23; *J.-L.J.* at paras. 33-35; *Abbey* 2017 at para.48.
- [20] Since *Mohan*, the jurisprudence has refined the *Mohan* framework into a two-stage analytical framework. To be admissible, expert opinion evidence must:
- 1) satisfy the four above-numerated preconditions to admissibility (the threshold *Mohan* inquiry); and
 - 2) survive the cost-benefit analysis by the trial judge (the discretionary gatekeeping stage).
- [21] At this second stage, having regard to the risks inherent in admitting expert evidence, the trial judge decides whether the benefits to the fact-finding process in the specific case warrant the admission of that evidence: *White Burgess* at para. 24; *Abbey* 2009 at paras. 76-79.

[22] In *Abbey* 2017, Justice Laskin provided a succinct summary of the evolution of the jurisprudence that reformulated the Mohan test into its current two-stage formulation, writing:

[47] The test in *White Burgess* is now the governing test for the admissibility of expert evidence. It adopts a two-stage approach, first suggested in *Abbey* #1: the first stage focuses on threshold requirements of admissibility; the second stage focuses on the trial judge's discretionary gatekeeper role. Each stage has a specific set of criteria.

[48] The test may be summarized as follows:

Expert evidence is admissible when:

(1) It meets the threshold requirements of admissibility, which are:

- a. The evidence must be logically relevant;
- b. The evidence must be necessary to assist the trier of fact;
- c. The evidence must not be subject to any other exclusionary rule;
- d. The expert must be properly qualified, which includes the requirement that the expert be willing and able to fulfil the expert's duty to the court to provide evidence that is:
 - i. Impartial,
 - ii. Independent, and
 - iii. Unbiased.
- e. For opinions based on novel or contested science or science used for a novel purpose, the underlying science must be reliable for that purpose,

and

- (2) The trial judge, in a gatekeeper role, determines that the benefits of admitting the evidence outweigh its potential risks, considering such factors as:
- a. Legal relevance,
 - b. Necessity,
 - c. Reliability, and
 - d. Absence of bias.

[49] In short, if the proposed expert evidence does not meet the threshold requirements for admissibility it is excluded. If it does meet the threshold requirements, the trial judge then has a gatekeeper function. The trial judge must be satisfied that the benefits of admitting the evidence outweigh the costs of its admission. If the trial judge is so satisfied then the expert evidence may be admitted; if the trial judge is not so satisfied the evidence will be excluded even though it has met the threshold requirements.

See also *R. v. Bingley*, 2017 SCC 12 at paras. 13-16; *Alkhalil* at para. 6; *Scott* at paras. 62-65.

[23] In *Bingley* at para. 17, Chief Justice McLachlin, writing for the majority, noted that trial judges must not conduct the foregoing admissibility analysis in a vacuum. Before applying the two-stage analytical framework, the trial judge must first determine the nature and scope of the proposed expert evidence. The court must then carefully delineate the boundaries of the proposed expert in order to minimize any potential harm to the trial process: *Abbey* 2009 at para. 62; *R. v. Sekhon*, 2014 SCC 15 at para. 46; *Alkhalil* at para. 7.

[24] In addition to the principles outlined above, Amicus relies specifically upon the decision in *R. v. Major*, 2022 SKCA 80, leave to appeal ref'd, 2023 CanLII 14940, wherein Justice Tholl addressed the issue of expertise in interpreting the reliability of data extracted with a third-party created software program employed by the RCMP in generating crash-scene analysis reports. I will address *Major* as it relates to this application later in these reasons.

[25] In *R. v. Giles*, 2016 BCSC 294 at paras. 30-82, Justice Ross also provided a comprehensive review of the principles that govern the admission of expert opinion evidence. For the purposes of the present application, the following point from para. 55 of her ruling is applicable:

[55] It is well established that formal training or certification is not a requirement for qualification as an expert, see *R. v. Marquard*, [1993] 4 S.C.R. 223. There is, as well, a substantial body of case law to support the admission of expert evidence from police officers whose qualification derives from their working experience, see *Sekhon*. Finally, there is a substantial body of case law supporting the qualification of a police witness as an expert in relation to the particular matters that the Crown seeks to qualify Mr. Lemieux to address in the present case; see for example, *R. v. Lindsay & Bonner*, (Ont. S.C.J.) [Lindsay]; *Giles*; *Violette*; and *R. v. Alcantara*, [Alcantara]. As noted above, Mr. Lemieux has been previously qualified to give such expert opinion evidence in a number of cases, including the *Giles* and *Violette* matters in this jurisdiction.

[26] As mentioned, in the case at bar, the only issue in dispute is S/Sgt. Bernier's qualification to give the expert opinion evidence sought on the reliability of the RDX software. Within this issue, Mr. Wiwchar has not challenged the requirement that the officer be impartial, independent, and unbiased. Moreover, in his evidence, S/Sgt. Bernier specifically testified that he understood that an expert's duty in testifying is to be impartial, independent, and unbiased. He indicated he was willing to fulfil that duty. I am satisfied he understands that duty and is willing and able to provide impartial, independent, and unbiased evidence in

this case.

The admissibility of PowerPoint presentations

- [27] PowerPoint presentations can assist the jury in making informed decisions. They can be instructive when considering the need to educate the jury on an area of science or to impart some other body of expert knowledge that the jury needs to know in order to decide the case in a fully-informed manner: *R. v. Millard*, 2016 ONSC 1517 at paras. 16-17.
- [28] Since the goal of an expert witness is to educate the jury to the point where they can understand the evidence that is being presented, a PowerPoint presentation is an appropriate and useful tool: *Millard* at para. 24.
- [29] In *Millard*, Justice Goodman observed that the jury was permitted to take notes of an expert's evidence and that there was essentially no difference with the PowerPoint slides being provided with the expert's key findings, as opposed to having the expert speak slowly and the jury attempting to take robust notes in order to follow along. Justice Goodman, citing Justice Heeney in *R. v. Sandham*, [2009] O.J. No. 4517, found that the PowerPoint was a convenient and necessary way to achieve the same end: *Millard* at para. 26.
- [30] Similar to the circumstances in *Alkhalil*, the admissibility of S/Sgt. Bernier's PowerPoint presentation is contingent upon the admissibility of his opinion evidence, and so I will address the former at the end of this ruling.

S/Sgt. Bernier's evidence

- [31] S/Sgt. Bernier testified in a voir dire before Justice Maisonville over six days in April and May 2022. The transcripts from that voir dire form part of the evidentiary record before the Court on this voir dire. S/Sgt. Bernier was called on this voir dire (NOA 198) and adopted his evidence from the previous voir dire and largely repeated it by taking the Court through his two PowerPoint presentations.
- [32] The first PowerPoint explained both the basics and the more technical features of BlackBerry smartphones, including: PGP-encrypted BlackBerry smartphones, how PGP works, the four types of extraction methods used to obtain data communications from an encrypted BlackBerry, and the analysis methods the RCMP Advanced Digital Forensic Services (ADFS) Unit employs to recover PGP passwords to gain access to a locked BlackBerry device.
- [33] The second PowerPoint presentation addresses interpreting reports generated by ADFS's RCMP Data eXtractor (RDX) tool used to process encrypted messages obtained when an extraction has been successful. The PowerPoint also sets out the process employed for reading and understanding the breakdown of the various fields in PGP records.

- [34] The two PowerPoint presentations, along with S/Sgt. Bernier's CV, as well as selected messages generated through the RDX process for the Where-is-Waldo device, selected messages from the WrathOfTitans device, and a comparison of selected messages from both the WrathOfTitans device and the Birdman device are all found in Exhibit 2.[1]
- [35] S/Sgt. Bernier's evidence on this voir dire outlined his training and experience, and detailed the steps undertaken to extract encrypted data, analyze it, and compare it as between devices communicating with each other. It was largely a repeat of his evidence before Justice Maisonville and done, in part, to educate the Court on a highly-technical field, and in part to address the areas of expertise that the Crown seeks to have S/Sgt. Bernier qualified in for Mr. Wiwchar's trial.

S/Sgt. Bernier's background and training

- [36] S/Sgt. Bernier is, as he was when he testified before Maisonville J., the non-commissioned officer in charge (NCOI/C) of the RCMP's "K" Division Digital Forensic Services. His training and experience are detailed in his CV, which is at Tab 1 of Exhibit 2 on this voir dire.
- [37] As his CV and his evidence on this voir dire establish, S/Sgt. Bernier has considerable knowledge and experience with the operational aspects of BlackBerry devices, including how to examine, interpret, and understand data relating to the sequencing and timing of messages, and the icons and artefacts that appear on BlackBerry screens. He has worked with the RDX program, which interprets BlackBerry data, for many years, and was involved in some of the beta testing of the RDX program when it was upgraded from RDX-3C to RDX-4.
- [38] Prior to S/Sgt. Bernier joining the RCMP in May 2004, he attended the University of Regina for two years, where he was enrolled in the computer sciences program and one semester in the engineering program. He then moved to eastern Ontario. In the fall of 2002, he enrolled in St. Lawrence College in the microcomputer engineering program. He completed two of the three years of that course of study, but after a three-month co-op placement with the RCMP, he left that program and joined the RCMP. His studies at university and college provided him with a solid foundation to transfer into his digital forensic work with the RCMP.
- [39] After three years as a general duty investigator, S/Sgt. Bernier transferred in late 2007 to the Integrated Technical Crime Unit (ITCU) in Ottawa to work in the field of digital forensics. His entire career since that posting has been focused on digital forensics.
- [40] When he joined ITCU, S/Sgt. Bernier enrolled in the understudy program, and in 2008 undertook a three-week-long computer forensic examiner course at the Canadian Police College. He then attended a cellphone seizure and analysis workshop from the same college later in 2008. Over the years, he has completed numerous training courses put on by vendors of the various forensic examination tools and programs. His CV outlines the numerous certifications he has obtained in relation to such tools and programs, including

Cellebrite, BlackLight, and XRY.

- [41] While with ITCU, S/Sgt. Bernier conducted forensic analyses of seized computers and other digital devices. In addition, he provided support services to other units and on-site expertise in the execution of search warrants.
- [42] In January 2011, S/Sgt. Bernier, then a corporal, transferred to the Technical Analysis Team (TAT) of the RCMP and was employed there as a digital forensic investigator until December 2015. Investigators with TAT provided national support for difficult, problematic, and challenging digital devices with in-phone encryption, as well as PGP encryption. Getting into such devices required research and development and specialized techniques. S/Sgt. Bernier's work at TAT focused almost exclusively on BlackBerry devices. These devices were sent to TAT from police forces across the country, as TAT had developed expertise in circumventing most BlackBerry devices and interpreting the data they contained, including PGP-encrypted data.
- [43] The majority of S/Sgt. Bernier's work while he was at TAT focused on getting into BlackBerry devices and extracting the data encrypted within them.
- [44] In his evidence before Maisonville J., S/Sgt. Bernier highlighted courses from his earlier training that helped him in his role as a forensic analyst. For instance, his Cellebrite training assisted with using forensic tools and his college education assisted him in understanding embedded systems. Moreover, his training and education in computers, circuit boards, chips, and electronics all assisted him in understanding the general principles grounding the chip-off extraction method. All of this training, education, and knowledge provided an excellent foundation for him when he moved into TAT.
- [45] In December 2015, S/Sgt. Bernier left his post at TAT. For the next five years, he was a senior cybercrime instructor with the Canadian Police College Technical Crime Learning Institute at RCMP headquarters. His primary duty was teaching a cellphone seizure and analysis course to mobile device examiners from various law enforcement agencies. He was also the primary course coordinator and instructor for the technical expert and testimony course. This course was developed to train examiners to more effectively present technical evidence in court and to understand their role and functions as expert witnesses.
- [46] In February 2020, S/Sgt. Bernier became the NCOI/C of the National Digital Forensic Program for the RCMP in Ottawa. He held that post for two years, and in February 2022, he transferred to his current position in Edmonton.
- [47] S/Sgt. Bernier has testified as an expert witness in numerous criminal trials across the country in the area of forensic analysis of BlackBerry devices, including encrypted devices, the extraction of data, and the interpretation of extraction reports relating to PGP and RDX. His CV lists eight such cases, including, in this province, R. v. Alkhalil and Amero, R. v. Ferguson, R. v. McBride, and R. v. McKinnon, as well as R. v. Nero, Wiwchar, Caputo, and Alkhalil in the Ontario Superior Court.

- [48] Consistent with an expert's role of independence and impartiality, S/Sgt. Bernier has provided evidence for both the Crown and the defence, and he has testified as a fact witness with respect to extraction reports on at least five occasions.

RDX

- [49] In reviewing S/Sgt. Bernier's evidence from this voir dire, it is apparent that his evidence here is, for the most part, very similar, if not identical to the evidence provided before Maisonville J. in Application 155 heard in April and May 2022.
- [50] Justice Maisonville's outline of the evidence before her at paras. 17-38 of her ruling comprehensively summarizes the evidence, and I adopt it into this ruling without the need to repeat it.
- [51] In this voir dire, S/Sgt. Bernier repeated his evidence, describing his hands-on in-house training in RDX. He began working with the RDX tool for extraction reports as soon as he started at TAT. He was brought into TAT to be trained and then help clear the backlog of approximately 500 devices waiting to be processed. This backlog developed because there was no other solution for unlocking encrypted BlackBerry devices. The only place that had developed a solution was TAT through its RDX extraction program, and so law enforcement agencies from across the country would send locked or encrypted BlackBerry devices to TAT to be unlocked.
- [52] When S/Sgt. Bernier started with TAT, they were using RDX-3. He studied and learned about the program, how to use it, and then started working with RDX-3C. This was the version of the extraction program in use at the time when he arrived at TAT. As newer BlackBerry devices with more memory developed, RDX-3C became obsolete. As a result, the RCMP developed RDX-4. Although S/Sgt. Bernier did not develop RDX-4, he was involved in its testing. He and a colleague went through eight to 10 previous extractions conducted in RDX-3 and processed them through RDX-4, conducting a comparison for the developers. The extraction results were the same.
- [53] While at TAT, S/Sgt. Bernier processed approximately five to 10 devices a week, generating RDX reports in approximately 400 instances over the years he was at TAT. S/Sgt. Bernier outlined this process in detail; it involved unlocking a locked, encrypted BlackBerry device. For the purposes of this ruling, it is not necessary to outline or summarize the entirety of that evidence. It is thoroughly summarized in the Crown's written argument, Exhibit A, at paras. 22-41, which I incorporate into this ruling without the need to repeat it.
- [54] There are several points that are important to understand about the RDX extraction process, and they include the following:
- [55] First, the decryption process with RDX is an all-or-nothing proposition. If RDX is not successful, it simply does not decrypt.

- [56] Second, RDX translates the extracted data, where decryption is successful, into humanly readable format.
- [57] Third, sometimes RDX and Cellebrite will "mis-decode" characters where special characters or a mix of languages are found in the content. When this has happened in the past, S/Sgt. Bernier would have to manually fix the decoding issues. However, even with mis-decoded characters, he did not observe any instances where RDX generated reports that were completely wrong.
- [58] Fourth, where RDX is unable to decrypt the BlackBerry built-in encryption and added PGP encryption, the report generated would show that the data remained encrypted, with a message reading "content protection" in the RDX report. Such a message tells S/Sgt. Bernier that the decryption process has failed.
- [59] Fifth, S/Sgt. Bernier compared the messages from two different BlackBerry devices seized in this case: the Birdman device seized from Mr. Amero's Montreal apartment, and the WrathOfTitans device seized from the taxi that Mr. Wiwchar was arrested in on or about June 21, 2012, in Toronto. S/Sgt. Bernier compared the messages sent between the two devices. Both devices were locked with BlackBerry encryption and PGP encryption. The Birdman device was processed through the chip-off method and the data decrypted and a report generated through RDX. The WrathOfTitans device was processed through the in-circuit technique that extracted the password hash. The password was resolved and the WrathOfTitans device was returned to the Toronto Police Service and screenshots were taken live from the device. The Wrath device was not processed through RDX. It was done manually with screenshots.
- [60] S/Sgt. Bernier explained that the Birdman version of the conversation processed through RDX was a deleted message from a locked device. The extracted conversation obtained from both devices matched each other which, for S/Sgt. Bernier, confirmed the reliability of RDX.
- [61] Sixth, although the RDX software was developed in-house by the RCMP and is not publicly available, it nevertheless has been tested internally by the RCMP. It has also been shared with one of Canada's Five Eyes security partners. To S/Sgt. Bernier's knowledge, that partner has not raised any issues with Canada or the RCMP as to RDX's functionality.
- [62] The RCMP has conducted internal testing of the RDX program through the development team in TAT. This involved beta testing of exemplar devices with RDX-4. Essentially, a number of devices were populated with known data to see if the program could replicate it through extraction. The beta testing was successful.
- [63] Seventh, S/Sgt. Bernier is not an expert in the field of data extraction and the chip-off method. His area of expertise is the analysis of the data extracted from the BlackBerry devices.
- [64] TAT's unit, now known as ADFS, is divided into three teams:

- 1) the lab team, which receives the device and uses its expertise in extraction to circumvent the encryption either by the chip-off or in-circuit techniques, then extracts the data;
 - 2) the analyst team, which takes the lab team's extraction and applies RDX, decrypts the data, generates a report, and provides disclosure of the report; and
 - 3) the data exploitation and interpretation team (DEIT), which developed and maintains the RDX program and supports the analyst team if it needs assistance.
- [65] S/Sgt. Bernier is a member of the analyst team. While he did not create or develop the RDX program, he worked with the members of DEIT and was involved with the testing of RDX-4 as it was being developed. Although not an expert on the software relating to RDX, its internal workings, or how it records the data that is provided to him, in his capacity as an analyst, S/Sgt. Bernier has applied RDX over 400 times in his work.

Analysis

- [66] There can be little doubt when considering S/Sgt. Bernier's background that he is extremely knowledgeable about BlackBerry devices and how they function. This finding is established from his very detailed evidence provided before Justice Maisonville, included as evidence in this voir dire, as well as the detailed evidence he provided to the Court on this voir dire.
- [67] The breadth of S/Sgt. Bernier's knowledge and understanding is also evident in his comprehensive PowerPoint presentations about BlackBerry devices, interpreting RDX reports, and reading decrypted messages extracted from BlackBerry devices. The two PowerPoint presentations distill a complex and technical area of digital forensics into a format understandable for the layperson unfamiliar with the subtleties and intricacies of digital devices and forensic extraction of data.
- [68] With regard to the suggestion that S/Sgt. Bernier has not maintained his expertise with BlackBerry technology, the officer addressed this concern when he explained that BlackBerry has essentially become obsolete technology not worth dedicating any more time to.
- [69] As Justice Maisonville observed, S/Sgt. Bernier's expertise could not be any more current than it already is: Alkhalil at para. 56.
- [70] Before addressing the facets of the Crown and Amicus' arguments on the contested portions of S/Sgt. Bernier's evidence, I will briefly address Mr. Wiwchar's arguments.

Mr. Wiwchar's submissions on why S/Sgt. Bernier ought not to be qualified to give expert evidence

- [71] Mr. Wiwchar relies upon the arguments advanced by counsel for Mr. Alkhalil, and cross-examined S/Sgt. Bernier from the cross-examination conducted by both defence counsel in the proceedings before Maisonville J. The arguments advanced by counsel for Alkhalil were all rejected by Justice Maisonville, as outlined by the Crown at paras. 3-6 of its reply submissions, attached as Appendix A to this ruling.
- [72] Summarily, the arguments were:
- 1) that S/Sgt. Bernier was not a BlackBerry expert: Alkhalil at paras. 38, 54-56; and
 - 2) RDX was not submitted to NIST for independent testing: Alkhalil at para. 76.
- [73] Justice Maisonville rejected these arguments and ruled that S/Sgt. Bernier was qualified and permitted to give expert evidence in the areas sought by the Crown. Mr. Wiwchar has raised nothing new in his cross-examination or submissions that leads me to a different conclusion than that reached by Justice Maisonville. Accordingly, I adopt her analysis on those two points.
- [74] Mr. Wiwchar also relies upon the cross-examination conducted by counsel for Mr. Amero with respect to anomalies found in the RDX reports. Justice Maisonville did not address this point in her ruling. However, I agree with the Crown's point at para. 5 of its Reply Submissions, that this goes to the weight of the evidence, not the admissibility of S/Sgt. Bernier's expert evidence.
- [75] I will now deal with the expert opinion evidence that the Crown seeks to have S/Sgt. Bernier qualified to give at Mr. Wiwchar's trial.

The expert opinion evidence

- [76] The expert opinion evidence from S/Sgt. Bernier, should he be qualified to give it, relates to the reliability of the RDX reports. RDX translates the computer code of locked devices, like encrypted BlackBerry devices, and translates that into a language or text that can be understood by laypeople. S/Sgt. Bernier has a vast and deep knowledge from working with RDX for five years, processing in excess of 400 BlackBerry devices.
- [77] He is in a unique position as a user of RDX to provide the trier of fact with an understanding of the RDX process and how the tool is used to translate the data into a readable form.
- [78] Amicus concedes that S/Sgt. Bernier is qualified to provide opinion evidence that RDX software generates a report of data extracted from a BlackBerry device in a readable format, and that RDX is capable of reading extracted data. Amicus contends, however, that S/Sgt. Bernier is not qualified to provide an opinion on the reliability of the initial physical image of the extracted data, primarily because S/Sgt. Bernier proceeds with his analysis on the assumption that the data extracted is reliable, though this does not mean the extract itself is

reliable.

- [79] Amicus argues that S/Sgt. Bernier cannot address the initial step of the process because he has no expertise in this area and was not involved in the creation of RDX. As mentioned earlier, Amicus relies on the Saskatchewan Court of Appeal decision in *R. v. Major*, 2022 SKCA 80 to support his position that because the officer was not involved in the creation of RDX, there is an absence of evidence relating to the reliability of the data extract itself.
- [80] Amicus argues that as S/Sgt. Bernier is not in a position to provide evidence about the reliability of the initial building block, that is the data extract, the reliability of the finished product--that is, the RDX report--becomes problematic: *Major* at para. 95.
- [81] Before addressing Amicus' argument, I will note at the Stage 1 analysis the proposed evidence is logically relevant, as the proposed expert opinion evidence would assist the jury in understanding how BlackBerry devices work and how to read RDX extraction reports. In this case, the PGP messages are critical evidence of the offences charged. In addition, the proposed expert opinion evidence is necessary to assist the trier of fact.
- [82] RDX reports are exceedingly technical and difficult to interpret on their face. The different data fields in an RDX report need to be explained by an expert. For instance, the extraction header, the Universal Time Code (Greenwich Mean Time) reveals that the time date stamps reflect the time zone of the reader, how messages are forwarded, truncated and the like, and how nicknames for devices are employed. In light of the very technical nature of this evidence, something beyond the purview of the ordinary citizen, the jury will need to be educated on how to read the extraction reports in order to decide the case in a fully informed manner. The jury will then be better positioned to determine what the translated text words mean and what weight, if any, to give to them in the context of all the evidence adduced at the trial. Bearing this in mind, S/Sgt. Bernier's evidence is both relevant and necessary. The proposed opinion evidence is not subject to any other exclusionary rule.
- [83] No argument was advanced before the Court that this proposed expert evidence was based on novel or contested science or science used for a novel purpose. Although advanced before Justice Maisonville, the court rejected it: *Alkhalil* at paras. 71-74.
- [84] I turn now to the argument presented by Amici that the decision in *Major* supports their position that S/Sgt. Bernier ought not to be qualified to provide expert opinion evidence on how the data is extracted, nor on the reliability of the extracted data.
- [85] In *Major*, the accused was convicted of three counts of criminal negligence in the operation of a motor vehicle causing death, and three counts of criminal negligence in the operation of a motor vehicle causing bodily harm. The accused drove his pickup truck through a highway intersection and struck a semi-truck with catastrophic results. Imaged data extracted from the onboard vehicle technology known as the event data recorder (EDR) was analyzed by a third-party crash data retrieval (CDR) software and used to assist the accident reconstruction expert to create a report that estimated the speed of the accused's vehicle.

The CDR output data indicated the accused's vehicle was moving at 137 km/hr five seconds prior to impact, that the brakes had been applied 1.2 seconds before the collision, and the vehicle was still travelling at 118 km/hr immediately before hitting the semi-truck.

- [86] At trial, the accused unsuccessfully argued that there was an insufficient evidentiary basis for the information derived from the vehicle's EDR to be tendered as part of the evidence to be given by the expert accident reconstructionist. The accused was unsuccessful on this point at the trial level. He advanced the same argument on his conviction appeal and was eventually successful in obtaining a new trial on this matter.
- [87] Justice Tholl, writing for the court, addressed the issue of threshold reliability of the evidence in issue at paras. 88-103 of the decision. Justice Tholl noted the problem with the EDR data, writing at para. 93:
- [93] The EDR data is created using a process unknown to the average person, is not accessible by an owner of the vehicle or their mechanic, and can only be extracted with highly specialized third-party software. In this case, there was no evidence as to how the data was actually gathered, what margin of error might exist and what circumstances could influence its accuracy. There was no evidence as to whether the EDR component recorded information accurately. There was also no explanation of any anomalies found in the EDR data.
- [88] The accident reconstruction expert was not qualified as an expert with respect to the analysis of EDR data, largely because the officer was unable to answer many of the questions that bore on the reliability of the EDR data: Major at para. 94.
- [89] As Tholl J.A. noted at para. 95, there was a complete absence of evidence upon which the trial judge could have examined the reliability of the EDR data. As the EDR data was the raw material for the CDR software to create the CDR output, there was no way to determine the reliability of the initial EDR data building block or the reliability of the finished product, being the CDR output.
- [90] Amicus contends that the same scenario applies in the case at bar. Amicus submits that since there is no evidence of the reliability of the data image extraction from the BlackBerry, the officer cannot provide an opinion on the reliability of the RDX reports. With respect, Major is simply a case where there was no information as to whether the EDR recorded the data accurately and the EDR data was the building block of the CDR analysis software. Accordingly, there was no basis in the evidence upon which the judge could determine the reliability of the foundational evidence used by the expert in reaching his opinion about speed at the time of the crash: Major at paras. 93-95; R. v. J.S., 2023 ONCJ 2016.
- [91] But, like the circumstances in J.S., in the case at bar there is a more robust foundation for the reliance on the RDX software. S/Sgt. Bernier has outlined for the Court his extensive work and training with using the RDX software and the spot checks he completed against both methods of extraction.

- [92] As Justice Maisonville noted in her ruling:
- [76] Nothing in the cross-examination of S/Sgt. Bernier created doubt about the reliability of the messages themselves in the RDX reports, excepting certain fields as were put to him in cross-examination. There was no suggestion that the software converted the data into content that was devoid of meaning or that it substituted words so as to change the meaning of the messages. The defence challenge to RDX's reliability rests in large measure on the absence of independent external validation. Given that the program was developed and has been used exclusively in-house, with the exception of one other law enforcement agency, it is not surprising that it has not been submitted for external review. While reliability data from the internal RCMP testing S/Sgt. Bernier said had been conducted would have been useful, I certainly do not consider its absence here to be problematic given the other indicia of reliability that exist.
- [77] When the in-circuit method of data extraction was used, S/Sgt. Bernier was able to conduct spot checks to compare the RDX generated reports to the original messages. When the chip-off method was used, S/Sgt. Bernier reviewed the RDX reports to confirm that the data had been decrypted. As he explained, if the software is not successful in a given case, it simply does not decrypt. Thus, if a report is generated, the software worked as intended. Given S/Sgt. Bernier's evidence that he had collectively generated over 400 reports, these verifications occurred over a large number of extractions and are an indication of reliability. As well, the comparison between the messages from the Birdman and WrathofTitans devices, representing two sides of the same conversation, was some further evidence of the reliability of the RDX. So, too, was the comparison of RDX reports and screen shots of the CervezaFreya device.
- [78] Some of the evidence led at trial further confirms the reliability of the RDX reports. This includes the shooting of Mr. Khun-Khun, which is reflected in messages on the Where-is-Waldo device, as well as discussion between Birdman and "KGB" about their son's birthday, which is consistent with the birth certificate of Mr. Amero's son.
- [93] It cannot be forgotten that S/Sgt. Bernier is able to give detailed evidence as to how BlackBerry devices record information and how the RDX software application recovers encrypted messages. The argument advanced by Amicus appears to suggest that only the person who removed the chip from the device or an engineer who developed the RDX program, a member of DEIT, could provide this evidence.
- [94] While it is correct that S/Sgt. Bernier neither developed the RDX software, nor was the engineer who extracted the memory from the BlackBerry device, either through the chip-off or in-circuit extraction techniques, he nevertheless has extensive specialized knowledge of the process. RDX was developed by the unit he worked in at the RCMP. While with TAT, the members of DEIT worked next to him. When issues arose, S/Sgt. Bernier would consult with the developers, for example, to update the templates in order to decode the data on a device.

[95] S/Sgt. Bernier was also part of the early testing of RDX-4, given that he was to be an end-user of the product and worked with the developers in a script for the web version of the RDX reports. Moreover, as Justice Maisonville noted in Alkhalil, his background here is thorough:

[69] S/Sgt. Bernier has extensive training and experience in interpreting RDX reports, an area most certainly beyond the experience and knowledge of the trier of fact. He was brought into TAT in 2011 to assist in clearing the large backlog of BlackBerry's in the queue to be decrypted, and he immediately underwent "A to Z" training on how RDX worked. Over the five years he was with TAT, he not only processed devices and generated RDX reports but he also fielded questions from recipients of the reports as to how to read and interpret them. He estimates that he generated over 400 RDX reports during this time. This provides him with a solid basis upon which to form an opinion about the reliability of the reports.

[96] I agree with Justice Maisonville's conclusion.

[97] In *R. v. Bingley*, 2017 SCC 12 at para. 19, Chief Justice McLachlin noted that:

The basic requirement of expertise for an expert witness is that the witness has expertise outside the experience and knowledge of the trier of fact.

[98] In *Alkhalil*, Maisonville J. built on that precondition, noting at para. 70:

[70] S/Sgt Bernier's opinion about reliability is based on that considerable experience, and is not invalidated because he was not the developer of the software nor has technical expertise in precisely how it operates. McLachlin C.J.'s comments in *Bingley* about whether a drug recognition expert ("DRE") had the necessary expertise in the application of the 12-step drug recognition evaluation and determination of impairment without understanding the underlying science are apposite (at para. 22):

This conclusion is not negated by the fact that a DRE is not trained in the science underlying the development of the 12-step evaluation. The test for expertise is merely knowledge outside the experience and knowledge of the trier of fact. Knowledge of the underlying science is not a precondition to the admissibility of a DRE's opinion. The scope of a DRE's expertise is in the application of the prescribed 12-step evaluation, not in its scientific foundation. Expert witnesses are not barred from assisting the court with their special knowledge simply because they are not trained in the underlying science of the field. Such knowledge is required only where the science is novel.

[99] I adopt Maisonville J.'s observation and note that similar conclusions apply with respect to other areas of technical forensic evidence and digital evidence in data extraction, be it DNA analysis, cellphone records, or computer records and imagery.

- [100] As Justice Maisonville noted in her ruling, computer code is akin to a translation from a foreign language to the English language. S/Sgt. Bernier interprets the RDX reports and gives an opinion based on the reliability of the translation. The meaning of the translation is up to the jury: Alkhalil at para. 73. In *R. v. Aitken*, 2012 BCCA 134, the Court of Appeal observed the following with regard to specialized knowledge acquired through training:
- [73] Of the identified preconditions, it is primarily the requirement for a properly qualified expert that is in issue on this appeal. In her treatment of this criterion, the trial judge identified the proper test, which is set out at p. 25 of Mohan: "the evidence must be given by a witness who is shown to have acquired special or peculiar knowledge through study or experience in respect of the matters on which he or she undertakes to testify". In my opinion, Mr. Kelly's experience and credentials satisfy this test. As summarized by the trial judge, his qualifications are as follows:
- [8] Mr. Kelly has a Bachelor of Science Degree in podiatric medicine and has been practising since 1987 in the United Kingdom. He has seen approximately thirty eight thousand patients. In 2002 he became a podiatric surgeon. From 2006 to the present he has been a researcher in forensic gait analysis identification at Barts College, which is part of the University of London. He has been consulted in approximately one hundred and fifty cases and has rendered over fifty expert opinions. He has testified in the English criminal courts over twenty times.
- [74] In evaluating Mr. Kelly's qualifications as an expert witness, the trial judge rejected the argument that his evidence was novel science. She observed, "Podiatry has been in existence for a thousand years and the expertise of a podiatrist to analyze an individual's gait has long been accepted and practiced in a clinical setting" (para. 34). Implicit in this conclusion is a determination that forensic applications of podiatry and gait analysis do not render the practice "novel" for the purposes of the Mohan test. In my respectful opinion, the trial judge did not err in so holding.
- ...
- [79] Where the proposed opinion is scientific in nature, the Daubert factors, outlined above, may be applicable. However, *Abbey*, which concerned the evidence of a sociologist who was an expert in urban street gang culture in Canada, makes it clear that the Daubert factors are not essential to the reliability inquiry where the proffered evidence is based on specialized knowledge acquired through training or experience in a particular discipline:

Scientific validity is not a condition precedent to the admissibility of expert opinion evidence. Most expert evidence routinely heard and acted upon in the courts cannot be scientifically validated. For example, psychiatrists testify to the existence of various mental states, doctors testify as to the cause of an injury or death, accident reconstructionists testify to the location or cause of an accident, economists or rehabilitation specialists testify to future employment prospects and future care costs, fire marshals testify about the cause of a fire, professionals from a wide variety of fields testify as to the operative standard of care in their profession or the cause

of a particular event. Like Dr. Totten, these experts do not support their opinions by reference to error rates, random samplings or the replication of test results. Rather, they refer to specialized knowledge gained through experience and specialized training in the relevant field. To test the reliability of the opinion of these experts and Dr. Totten using reliability factors referable to scientific validity is to attempt to place the proverbial square peg into the round hole (Abbey, para. 109).

- [101] Finally, on the issue of reliability of the initial data extraction, the comparison of the Birdman and WrathOfTitans devices' messages relating to the same conversation provides a measure of reliability with respect to the initial data extraction through RDX. The Birdman device side of the conversation was obtained using the chip-off method in RDX, whereas the Wrath device messages were obtained using the in-circuit technique to obtain the password hash to unlock the device. Once the device was unlocked through the in-circuit technique, screenshots were then taken of the messages on the Wrath device. When the messages were compared between the devices, they were a match. This fact speaks strongly to the reliability of RDX.
- [102] Other evidence tendered on this voir dire which confirms the reliability of RDX includes the following: the shooting of Mr. Khun-Khun, something reflected in messages on another BlackBerry device known as the Where-is-Waldo device; and a conversation between Birdman and another about their son's birthday that is consistent with the birth certificate of Mr. Amero's son.
- [103] S/Sgt. Bernier's extensive training and vast experience in using RDX, conducting spot checks, and cross-comparisons of conversations all lead me to the conclusion that his proposed evidence meets the threshold for reliability as it relates to the expert opinion the Crown seeks to lead, as outlined in para. 3 of their NOA 198.
- [104] Neither Amicus nor Mr. Wiwchar have advanced arguments that the evidence should be excluded under the second stage of the admissibility analytical framework. I would decline to exercise my discretion as the gatekeeper to exclude this evidence, as I am satisfied that the benefits of its admission outweigh any potential risks or costs.

Proposed non-opinion evidence

- [105] The Crown seeks to have S/Sgt. Bernier qualified to give non-opinion evidence--that is, evidence of fact--concerning four areas set out in the introductory portion of this ruling. To the extent that Mr. Wiwchar relied upon the submissions of counsel before Justice Maisonville in the Alkhalil and Amero trial, Justice Maisonville rejected them: Alkhalil at paras. 80-81. I see no need to revisit these arguments.

- [106] The only areas that Amici contends S/Sgt. Bernier is not qualified to comment upon are (i) how data is extracted from BlackBerry devices and (ii) the reliability of the extraction of the data. These points rely squarely on the decision in Major. However, for the reasons outlined above, I do not interpret Major as offering any new developments in the law. Rather, it is an application of current law to the specific facts of that case.
- [107] For the reasons already provided on the proposed expert opinion evidence of S/Sgt. Bernier, I am satisfied that he is qualified to give this evidence with respect to this disputed aspect of the four fact areas that the Crown seeks to lead from him, as outlined in paras. 2(a)-2(d) of the NOA 198.

PowerPoint presentation

- [108] No argument was advanced opposing the admission of the PowerPoint presentation, apart from how it might be impacted if parts of S/Sgt. Bernier's expert evidence were determined inadmissible.
- [109] In light of the fact that I have found S/Sgt. Bernier qualified to offer both expert opinion evidence and expert non-opinion evidence in the areas sought by the Crown, and that this evidence is admissible, the PowerPoint presentation is also admissible and will be marked as an exhibit at the trial.
- [110] That concludes my ruling, thank you.

"Ker J."

Appendix 'A'

Excerpt from Crown's Reply Submissions on NOA 198, paras. 3-6:

3. In paragraphs 6 and 9 B) of Mr. Wiwchar's submissions, he referred to the submissions of Mr. Alkhalil.

4. The Crown reply to Mr. Alkhalil's submissions have been attached at Tab 2.

5. The arguments of Alkhalil relied upon by Mr. Wiwchar were rejected by Justice Maisonville In R. v. Alkhalil, 2022 BCSC 905:

· "Not a BlackBerry Expert" Paras: 7;11 of Mr. Wiwchar's written submissions: Mr. Wiwchar cross examined SSgt. Bernier about evidence given in Mr. Alkhalil's Montreal drug trial that he was not, in fact, a BlackBerry expert. Mr. Wiwchar conducted substantially the same cross examination as Mr. Fowler and SSgt. Bernier gave substantially the same answers: October 3 Transcript, page 64-68. in Alkhalil, Justice Maisonville found:

[38] Asked whether those answers were true, S/Sgt. Bernier responded they were true "in the context of that case, yes". He later explained in reexamination that he had been a lay witness in that case, and that another person had given evidence regarding RDX and flash memory. While his responses were true, he said that with the benefit of hindsight the comment about those days being behind him sold himself short since the technology had not changed since the time he was in TAT.

[54] I disagree with these submissions and conclude that S/Sgt. Bernier is qualified to give the opinion sought by the Crown.

[55] The accused attach much significance to S/Sgt. Bernier's comment that he was "not an expert on the BlackBerry Enterprise Server admin side and infrastructure and all that". However, it is for the Court to determine whether a proposed expert has the requisite expertise, not the witness. In my view, there is little doubt from S/Sgt. Bernier's evidence as a whole that he is very knowledgeable about BlackBerrys and how they function. This is evidenced in his detailed responses to questions from both Crown and defence, as well as in his detailed PowerPoint presentation about BlackBerrys. While it is not obvious to me that BES is an entirely separate issue from the functioning of BlackBerrys, I am satisfied that he is sufficiently knowledgeable about BES to give the narrow opinion sought. It is clear from his testimony regarding the time discrepancy that he had considered other potential explanations for it, including that the server was in an earlier time zone or that the server was misfigured and did not reflect the change from Daylight Savings Time. This demonstrates an understanding of BES beyond that of the

trier of fact.

[56] As for the proposition that S/Sgt. Bernier by his own admission has not maintained his expertise with respect to BlackBerry technology, the officer himself addressed this when he explained that BlackBerry has, in essence, become obsolete technology and thus not worth dedicating time to anymore. His expertise cannot be anymore current than it is.

· "RDX not submitted to NIST for Independent Testing": Mr. Wiwchar also cross examined SSgt. Bernier regarding the RDX program not being submitted for testing and validation by the US National Institute of Standards and Technology (NIST), along the same lines as was done by counsel for Mr. Alkhalil: October 3 Transcript, page 68-73; October 4 Transcript, page 25-29. In Alkhalil Justice Maisonville found:

[76] Nothing in the cross-examination of S/Sgt. Bernier created doubt about the reliability of the messages themselves in the RDX reports, excepting certain fields as were put to him in cross-examination. There was no suggestion that the software converted the data into content that was devoid of meaning or that it substituted words so as to change the meaning of the messages. The defence challenge to RDX's reliability rests in large measure on the absence of independent external validation. Given that the program was developed and has been

used exclusively in-house, with the exception of one other law enforcement agency, it is not surprising that it has not been submitted for external review. While reliability data from the internal RCMP testing S/Sgt. Bernier said had been conducted would have been useful, I certainly do not consider its absence here to be problematic given the other indicia of reliability that exist.

· "Anomalies in the RDX reports": In para: 8 of Mr. Wiwchar's submissions he refers to counsel for Mr. Amero's cross examination regarding anomalies found in the RDX reports. While this aspect of the cross examination was not addressed in Justice Maisonville's ruling, the argument goes to weight, not admissibility.

6. Justice Maisonville ruled that SSgt. Bernier was qualified and permitted to give expert evidence in the areas sought. Nothing raised by Mr. Wiwchar in his cross examination or his submissions should cause this court to come to a different conclusion from Justice Maisonville.

[1] The Crown will seek to establish in this trial, as it did in the trial before Justice Maisonville, the following user identifications: (i) the Where-is-Waldo device was one of Mr. Alkhalil's BlackBerry devices; (ii) the Birdman device was one of Mr. Amero's BlackBerry devices; and, (iii) the WrathofTitans device was one of Mr. Wiwchar's BlackBerry devices.

Source & reproduction note

Judgment wording, source notices and original paragraph numbers are retained. Esheria supplies the layout and this PDF's page numbers; these are not the source pagination. This is a research copy, not an official or certified court document. Check quotations, citations and publication restrictions against the original source before relying on it.

ORIGINAL SOURCE <https://www.bccourts.ca/jdb-txt/sc/24/25/2024BCSC2580.htm>

CASE PAGE <https://chat.esheria.ai/case-law/canada/r-v-wiwchar-2024-bcsc-2580>

Prepared on 26 October 2026 · Esheria